

**Performance Requirement:**

**Environmental Protection:**

Managing Waste; Air Quality;

Ecological and Cultural Resources;

Waste Minimization and Pollution Prevention; and

Surface and Groundwater

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**Standard Statement:**

The Laboratory's goal is to accomplish its mission cost-effectively while striving for an injury-free workplace, minimizing waste streams, and avoiding adverse impacts to the environment from its operations.

Environmental protection must be carried out in a cost effective and environmentally responsible manner. This includes, but is not limited to, managing waste; air quality; ecological and cultural resources; waste minimization and pollution prevention; and surface and groundwater activities.

**General**

**Performance Criteria:**

1. The Laboratory shall establish and maintain an effective set of environmental protection standards in accordance with integrated safety management.
2. Institutional environmental protection requirements/guidance that address the all environmental Work Smart Standards must be made available to all Laboratory organizations, including subcontractors.
3. Roles and responsibilities are clearly defined. Authorities are commensurate with responsibilities. All personnel are provided appropriate resources and are held accountable for carrying out assigned responsibilities.
4. Training qualifications and requirements are identified and documented as appropriate and as required.

**Appendix 1**  
**Managing Waste**

**Performance Criteria**

- 1.1. All waste generated will be stored, transported, treated, and disposed of in a manner that protects the environment, workers, and the public in accordance with Work Smart Standards.
- 1.2. Waste handling requirements are established to provide compliance with appropriate Work Smart Standards.
  - 1.2.1 Hazardous Waste
  - 1.2.2 Solid Waste
  - 1.2.3 Asbestos Waste
  - 1.2.4 Blood-borne Pathogens
  - 1.2.5 Non-mixed TRU Waste
  - 1.2.6 Low-level radioactive waste
  - 1.2.7 Polychlorinated biphenyl waste
  - 1.2.8 Waste oil
  - 1.2.9 Mixed Waste
  - 1.2.10 Underground Storage Tanks

**Contractual Work Smart Standards:**

- 10 CFR 962, By-product rule
- 29 CFR 1910.1030, Blood-borne pathogens
- 29 CFR 1910.1001, Asbestos Waste
- DOE O 435.1, Radioactive Waste Management
- LANL Hazardous Waste Facility Permit
- New Mexico Hazardous Waste Act
  - 20 NMAC 4.1-4.3, New Mexico Hazardous Waste Act implementing regulations
  - 20 NMAC 5.1-5.17, Underground Storage Tank regulations
  - 20 NMAC 9.1-9.4, New Mexico Solid Waste Act implementing regulations
- Toxic Substances Control Act
  - 40 CFR 761, PCBs only
- Resource Conservation and Recovery Act
  - 40 CFR 260-270, Solid Waste, Subchapter I, Hazardous Waste
  - 40 CFR 273, Universal Waste Regulations
  - 40 CFR 279, Standards for the Management of Used Oil

**Appendix 2**  
**Air Quality****Performance Criteria:**

- 2.1. Operations will be managed in a manner that protects the environment, workers, and the public in accordance with Work Smart Standards.
- 2.2. Air quality requirements are established and implemented to comply with Work Smart Standards addressing
  - 2.2.1 Radioactive air emission
    - Radiation stack monitoring
    - Surveillance and monitoring
  - 2.2.2 Nonradioactive air emission
  - 2.2.3 Ozone depleting substances
  - 2.2.4 Public health impacts (dose assessments)
  - 2.2.5 Emergency planning and community right-to-know

**Contractual Work Smart Standards:**

Clean Air Act and Clean Air Act Amendments

New Mexico Air Quality Control Act

- 20 NMAC 2.1 General Provisions
- 20 NMAC 2.2 Definitions
- 20 NMAC 2.3 Ambient Air Quality Standards
- 20 NMAC 2.7 Excess Emissions during Malfunction, Startup, Shutdown, or Scheduled Maintenance
- 20 NMAC 2.11 Asphalt Process Equipment
- 20 NMAC 2.60 Open Burning
- 20 NMAC 2.61 Control of Smoke and Visible Emissions
- 20 NMAC 2.70 Operating Permits
- 20 NMAC 2.71 Operating Permit Emission Fees
- 20 NMAC 2.72 Construction Permits
- 20 NMAC 2.73 Notice of Intent and Emissions Inventory Requirements
- 20 NMAC 2.77 New Source Performance Standards (40 CFR 60 Subpart A)
- 20 NMAC 2.77 NSPS for Volatile Organic Liquid Storage Vessels
- 20 NMAC 2.78 NESHAP - General Provisions (40 CFR 61 Subpart A)
- 20 NMAC 2.78 NESHAP for Beryllium (40 CFR 61 Subpart C)
- 20 NMAC 2.78 NESHAP for Asbestos (40 CFR 61 Subpart M)
- 20 NMAC 2.82 General Requirements (40 CFR 63 Subpart A)

40 CFR 61 Subpart H NESHAP for Radionuclides other than Radon for DOE Facilities

40 CFR 61 Subpart Q NESHAP for Radon Emissions from DOE Facilities

**Appendix 2—Air Quality (continued)**

40 CFR 63 Subpart T NESHAP for Halogenated Solvent Cleaning

40 CFR 68 Accidental Release

40 CFR 80 Subpart B Controls and Prohibitions

40 CFR 80 Subpart G Fuels and Fuel Additives: Regulation of Fuels and Fuel Additives:  
Interim Requirements for Deposit Control Gasoline Additives

40 CFR 82 Subpart B Servicing of Motor Vehicle Air Conditioners

40 CFR 82 Subpart F Recycling and Emission Reduction

Current LANL-NM state-approved permits

DOE O 5400.1, General Environmental Protection Programs,

Chapter III; Chapter IV, Parts 1, 2, 3, 4, 5, 6, 7, 8, and 10

DOE 5400.5, Radiation Protection of the Public and the Environment

Chapter I, Parts 8 and 10; Chapter II, Parts 1, 2, 6, 7, and 8; Chapter III

**Appendix 3**  
**Ecological and Cultural Resources**

**Performance Criteria:**

- 3.1. Ecological and cultural resources are managed to protect the environment, workers, and the public in accordance with Work Smart Standards.
- 3.2. Ecological and cultural resource requirements are established to provide compliance with Work Smart Standards.
  - 3.2.1 Ecological resources (forestry and wildlife)
  - 3.2.2 Cultural resources
    - Historical (greater than 50 years old)
    - Archeological
    - Traditional cultural properties
  - 3.2.3 Environmental planning
    - Land use planning
    - Environmental assessments and impact statements
  - 3.2.4 Monitoring and surveillance of soils, and biota

**Contractual Work Smart Standards:**

Endangered Species Act (16 USC 1531-1543), as amended

50 CFR 17.11, Endangered and Threatened Wildlife (August 23, 1993)

50 CFR 17.12, Endangered and Threatened Plants (August 23, 1993)

50 CFR 10, General Provisions (April 5, 1985)

50 CFR 402, Interagency Cooperation--Endangered Species Act of 1973, as amended (Section 7, Consultation)

National Historic Preservation Act (PL 89-665, 16 USCA 470aa-11), as amended

36 CFR 800, Protection of Historic and Cultural Properties

36 CFR 60, National Register of Historic Places

36 CFR 63, Determinations of Eligibility for Inclusion in the National Register

36 CFR 65, National Historic Landmarks Program

36 CFR 68, Secretary of the Interior's Standards for the Treatment of Historic Properties

36 CFR 78, Waiver of Federal Agency Responsibilities under Section 110 of NHPA

36 CFR 79, Curation of Federally Owned and Administered Archeological Collections

National Environmental Policy Act of 1969 (PL 91-190, 42 USC 4321-4347, as amended

40 CFR 1500-1508, Protection of the Environment, July 1, 1986

10 CFR 1021, National Environmental Policy Act Implementing Regulations, April 24, 1992, and as amended July 8, 1996

## **Appendix 4**

### **Waste Minimization and Pollution Prevention**

#### **Performance Criteria:**

- 4.1. Operations are conducted in a formal manner that integrates waste minimization and pollution prevention efforts and protects the environment, workers, and the public in accordance with Work Smart Standards.
- 4.2. Waste minimization and pollution prevention requirements are established to provide compliance with Work Smart Standards.
  - 4.2.1 Sanitary and administrative spent materials recycling
  - 4.2.2 Procurement of materials with recycled content
  - 4.2.3 Design for the environment
  - 4.2.4. Design for energy and water conservation
  - 4.2.5 Life cycle costing

#### **Contractual Work Smart Standards:**

Clean Air Act of 1990 (42 USCA 7401, 7511b, 7671g)

Federal Water Pollution Control Act (33 USCA 1251-1252, 1323)

Pollution Prevention Act of 1990 (42 USCA 13101-2, 13107)

Resource Conservation and Recovery Act (42 USCA, 6901, 6924, and 6961-2 et seq.)

**Appendix 5**  
**Surface and Groundwater**

**Performance Criteria:**

- 5.1. Surface and groundwater resources are managed to protect the environment, workers, and the public in accordance with Work Smart Standards.
- 5.2. Surface and groundwater requirements are established to provide compliance with Work Smart Standards.
  - 5.2.1 Drinking water
  - 5.2.2 Groundwater
  - 5.2.3 Pesticides
  - 5.2.4 Septic systems
  - 5.2.5 Sewage and sludge disposal
  - 5.2.6 Storm water
  - 5.2.7 Spill notification and response
  - 5.2.8 Surface water
  - 5.2.9 Wastewater discharges
  - 5.2.10 Water quality

**Contractual Work Smart Standards:**

Comprehensive Environmental Response, Compensation, and Liability Act

40 CFR 302, Designation, Reportable Quantities and Notification

Emergency Planning and Community Right-to-Know Act

40 CFR 355, Emergency Planning and Notification

Federal Water Pollution Control Act (CWA)

33 CFR 320, 321, 322, 323 and 330, Corps of Engineers Regulations for Protection of Water of the US and Nationwide Permit Program

40 CFR 104, Public Hearings on Effluent Standards for Toxic Pollutants

40 CFR 121, State Certification of Activities Requiring a Federal License or Permit

40 CFR 122, EPA Administered Permit Programs: NPDES

40 CFR 124, Procedures for Decision Making

40 CFR 125, Criteria and Standards for the NPDES

40 CFR 129, Toxic Pollutant Effluent Standards

40 CFR 131, Water Quality Standards

40 CFR 135, Prior Notice of Citizen Suits

40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants

New Mexico Environmental Improvement Act

20 NMAC 7.1, Drinking Water

New Mexico Hazardous Chemicals Information Act

NMSA Sections 74-4E-1 to -9 (1993)



**Appendix 5—Surface and Groundwater (continued)**

New Mexico Hazardous Waste Act

40 CFR 264 and 265, Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities

40 CFR 270, EPA Administered Permit Programs: The Hazardous Waste Permit Program

New Mexico Pesticide Control Act

21 NMAC 17.53, Continuing Education Units for Pesticide Applicators

21 NMAC 17.56, Restricted-Use Pesticides

NMDA Rule 88-2, Fees for Pesticide Registrations and Licenses

NMDA Rule 89-1, Control of Wood-Destroying Pests

NMDA Rule 89-2, Restricted Use Pesticides

NMDA Regulatory Order 4 Regulatory Orders of the Board of Regents of New Mexico State University

NMDA Regulatory Order 5 Definitions, Licensing, Equipment Inspections, Record Keeping of Pesticides by Regulated Applicators

NMDA Regulatory Order 7 Establishes Financial Responsibility for Commercial Applicators

New Mexico Utility Operators Certification Act

20 NMAC 7.4, Utility Operator Certification

New Mexico Water Quality Act

20 NMAC 6.1, Water Quality; General Provisions

20 NMAC 6.2, Ground and Surface Water Protection (including the Energy, Minerals, and Natural Resource Department, Oil Conservation Department Delegated Rules)

20 NMAC 7.3, Liquid Waste Disposal

20 NMAC 9.1, Solid Waste Management

Oil Pollution Act

40 CFR 110, Discharge of Oil

40 CFR 112, Oil Pollution Prevention

Resource Conservation and Recovery Act

42 USC 6939e, as amended by Section 108 FFCA, Federally Owned Treatment Works

Safe Drinking Water Act

40 CFR 141, National Primary Drinking Water Regulations

40 CFR 142, National Primary Drinking Water Regulations Implementation

40 CFR 143, National Secondary Drinking Water Regulations

Current LANL - NM State - approved permits

(CWA) Applicable 404 - Nationwide Permits

DOE O 5400.1, General Environmental Protection Programs (except Chapter 2, paragraphs 2, 4.d, and 5l and Chapter 4, paragraph 3)

DOE O 5400.5, Radiation Protection of the Public and the Environment, as applicable to Surface Water and Ground Water (Chapter 1-4)

DOE O 435.1, Radioactive Waste Management